

Dr. H. Fraenkel-Conrat,  
The Virus Laboratory,  
University of California,  
BERKELEY,  
California, U.S.A.

20th April, 1956.

Dear Dr. Fraenkel-Conrat,

Very many thanks for the latest Hg-protein. It does not seem to have such a strong tendency to disaggregate as the previous preparation, and I am quite hopeful of obtaining a well-orientated specimen from it, though this will probably take some time. I find that washing the glass capillary repeatedly with a little Hg-protein solution progressively reduces its tendency to cause disaggregation. Washing it with buffer does not have the same effect.

Now may I make one more small request before making a big one? Could you spare me a few milligrams of your unsubstituted TMV protein, so that I can compare your Hg-protein directly with your protein rather than with Schramm's?

The big request concerns the visit to the U.S.A. which I am hoping to make this summer. I hope to be able to come over for two months, starting with the Gordon Conference in June. I should, of course, like to visit Berkeley, and I wondered whether it would be possible for me to spend a few weeks (up to one month) in your laboratory in order to learn from you something of the techniques of handling virus material. If I did this, one possible way of spending my time might be in attempting to prepare, under your supervision, some new heavy-atom derivative of TMV, such as would be useful in the X-ray work (we particularly need a heavy atom bound to a specific site on the outside of the particle). However, any alternative suggestion from you would be welcome.

Perhaps I should mention that I was originally trained as a chemist, not a physicist!

P.T.O.

If you think that such a scheme would be possible, what dates would be most convenient for you? I know that you will be in the East for meetings in June, but do not know how soon you will be returning to Berkeley afterwards.

There is nothing new here since I last wrote to you except that we now have the radial density distribution for both CV4 and U2 strain of TMV. Both have, like normal TMV, the RNA peak at 40 A radius. The protein density peaks are in the same positions as for TMV but of varying relative intensities.

Best wishes,

Yours sincerely,

Rosalind Franklin.